ABSTRACT OF THE DISCLOSURE

A virtual interface is disclosed. A method may include allowing upper layer software to transparently access the capabilities of a network device via a virtual interface as if the network device were in a computing device in which the upper layer software is resident. A communication channel may be established with a computing device. A virtual interface to a network device in the computing device is created. Incoming data units directed to the network device are received via the communication channel, and are made available via the virtual interface. Outgoing data units directed to the virtual interface may be forwarded to the network device via the communication channel. The methods may be implemented on computing devices that include network cards, including computers and/or network testing systems.